

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 1 (currently amended): A method of authenticating a client to a server
2 comprising:
3 generating a challenge at the client;
4 signing the challenge to form a signed challenge;
5 sending at least the signed challenge to the server, where the authenticity of the
6 server is not in question;
7 verifying the signature of the challenge at the server; and
8 if the signature is verified, sending an indication of successful authentication to
9 the client, where the indication of successful authentication is generated employing a single
10 round trip authentication scheme.

1 2 (original): The method of claim 1, wherein generating a challenge at the client
2 comprises generating a random number.

1 3 (original): The method of claim 1, wherein generating a challenge at the client
2 comprises generating a sequential challenge.

1 4 (original): The method of claim 1, wherein generating a challenge at the client
2 comprises generating a challenge based on data received from the server in a prior step.

1 5 (original): The method of claim 4, wherein the data received from the server is
2 a challenge returned with a server response to a prior client query.

1 6 (currently amended): A method of using a one-time use card number for an
2 online transaction, comprising:

3 generating a one-time use card number at a user system using a random number
4 generator;
5 authenticating the user system to an issuer system, where the authenticating
6 employs a single round trip authentication scheme;
7 passing the one-time use card number from the user system to the issuer system;
8 passing the one-time use card number from the user system to a merchant system,
9 wherein the merchant system is programmed to present the one-time use card number to the
10 issuer system to effect a payment;
11 verifying the one-time use card number received from the merchant system with
12 the one-time use card number received from the user system; and
13 if the one-time use card number is verified, approving the transaction.

1 7 (original): The method of claim 6, wherein passing the one-time use card
2 number to the issuer includes passing at least one other data element related to the online
3 transaction.

1 8 (original): The method of claim 7, wherein the at least one other data element
2 is selected from, or a function of, a user's account number, a user's private key, a transaction
3 time, a transaction amount, or a merchant ID.